Isonics switches silicon-28 supplier

Isonics Corp (Golden, CO, USA) is continuing efforts to commercialise isotopically pure silicon-28 wafers (which have superior heat transfer properties than natural silicon), despite a breakdown in its 1999 alliance with **Eagle-Picher Technologies LLC** (Joplin, MO, USA) to produce bulk wafers.

In December 1999, Isonics sold its depleted zinc (DZ) business to Eagle-Picher and made a deal for 200 kg of Si-28 for delivery in 2000. Eagle-Picher planned to set up a pilot line to produce 3-5 tons of material a year in return for 18% of Isonics, but in February Isonics cancelled Eagle-Picher's 3.1m shares.

Isonics president and CEO James E Alexander accused Eagle-Picher of failing to deliver "any of the promised silicon-28 wafers" and failing to make payments related to the DZ business. Isonics is considering binding arbitration for a "significant amount of damages."

Isonics is now moving ahead with another R&D partnership in Russia to develop techniques for isotopically pure silicon-28. Production has recently been demonstrated using an advanced version of the proven Russian gas centrifuge, but with several times the production capacity and capable of using a more convenient chemical form of silicon as raw material than was used previously.

"As a result of this manufacturing breakthrough and new cost structure [a combination of lower silicon-28 isotope cost and reduced costs to convert the silicon-28 into polysilicon metal], we believe we will be able to meet cost targets for certain segments of our target market for silicon-28 prime bulk wafers and will be in an improved cost position for our present silicon-28 epitaxial wafer products," says Alexander.

"We are negotiating an order for replacement of the 200 kg that Eagle-Picher failed to deliver, as well as several additional tons to more aggressively pursue our silicon-28 prime wafer program."

A previous commitment to sign licensing or joint-development pacts for silicon-28 wafers with major microprocessor manufacturers was still on track to happen before April 30, he reckons.

If Eagle-Picher "mitigate their damages to Isonics", Isonics will have multiple sources of supply for silicon-28. "Competition between suppliers should further reduce isotope cost."

ATMI's sales up 23% over 2000

For Q1/2001 ("the first full quarter of this semiconductor industry downturn", says CEO Gene Banucci), revenues for ATMI Inc (Danbury, CT, USA) were US$77.3m (up 23% on Q1/2000 but down 11% on Q4/2000).

ATMI's net restructuring charge is now US$4.9m (rather than the US$6m announced previously). Speeding the rationalisation of businesses acquired over several years will cut 10% of staff.

But "the next two quarters will be weaker than originally forecast" (see Issue 2, page 19). ATMI expects another 10-20% drop in sales in Q2, before a flat Q3 and a marked upturn in Q4.